

# DATA SHEET

## ESPRIMO E7935 E80+

Issue: April 2009

Your desktop PC without any compromises

### ESPRIMO E7935 E80+

The ESPRIMO E7935 E80+ can be positioned vertically or horizontally - the ideal choice for your desk. Equipped with state-of-the-art Intel® technology, especially with regard to system management, this PC, made of environmentally conscious material, operates reliably and quietly. It also has an 80% effective power supply which significantly helps to save the environment and reduce your costs. Why compromise between a good conscience and top-quality equipment when you can have both at the same time?



### Small form factor PC

Flexible desktop solution whatever the space required.

- Less than 13 litres volume; also usable as a thin client

### Environmentally compatible product

Your contribution to environmental protection for the continued existence of our planet

- Halogen-free mainboard, sophisticated product concept for the entire lifecycle



### Quiet

Pleasant working environment due to an extremely quiet system

- Innovative hardware design, optimized cooling concept

### System management

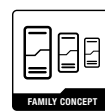
Simple system administration for complex IT infrastructures

- Latest Intel® Q45 chipset and Intel® vPro™ technology (with selected processors)

### Energy-saving

Low power consumption and costs with no loss in performance.

- State-of-the-art technology, switched monitor outlet, low energy-consuming processors, power supply efficiency up to 85% and enhanced power management settings



## Components

|   |   |
|---|---|
| <b>Processor</b>                                    | Intel® Core™2 Quad Q9550 (2.83 GHz, 12 MB, 1333 MHz ) |
|   | Intel® Core™2 Quad Q9400 (2.66 GHz, 6 MB, 1333 MHz )  |
|   | Intel® Core™2 Quad Q8300 (2.5 GHz, 4 MB, 1333 MHz )   |
|   | Intel® Core™2 Quad Q8200 (2.33 GHz, 4 MB, 1333 MHz )  |
|   | Intel® Core™2 Duo E8600 (3.33 GHz, 6 MB, 1333 MHz )   |
|   | Intel® Core™2 Duo E8500 (3.16 GHz, 6 MB, 1333 MHz )   |
|   | Intel® Core™2 Duo E8400 (3.0 GHz, 6 MB, 1333 MHz )    |
|   | Intel® Core™2 Duo E7500 (2.93 GHz, 3 MB, 1066 MHz )   |
|   | Intel® Core™2 Duo E7400 (2.8 GHz, 3 MB, 1066 MHz )    |
|   | Intel® Core™2 Duo E7300 (2.66 GHz, 3 MB, 1066 MHz )   |
|   | Intel® Pentium® E5400 (2.70 GHz, 2 MB, 800 MHz )      |
|   | Intel® Pentium® E5300 (2.6 GHz, 2 MB, 800 MHz )       |
|   | Intel® Pentium® E5200 (2.5 GHz, 2 MB, 800 MHz )       |
|   | Intel® Pentium® E2220 (2.4 GHz, 1 MB, 800 MHz )       |
|   | Intel® Celeron® E1200 (1.6 GHz, 512 KB, 800 MHz )     |
|   | Intel® Celeron® 450 (2.2 GHz, 512 KB, 800 MHz )       |
| <b>Memory modules</b>                               | 4 GB (1 module(s) with 4 GB, DDR2), 800 MHz           |
|   | 2 GB (1 module(s) with 2 GB, DDR2), 800 MHz           |
|   | 1 GB (1 module(s) with 1 GB, DDR2), 800 MHz           |
| <b>Hard disk drives (internal)</b>                  | SSD SATA, 128 GB, 2.5-inch                            |
|   | SSD SATA, 64 GB, 2.5-inch                             |
|   | SATA II, 7200 rpm, 500 GB, 3.5-inch, S.M.A.R.T.       |
|   | SATA II, 7200 rpm, 250 GB, 3.5-inch, S.M.A.R.T.       |
|   | SATA II, 7200 rpm, 160 GB, 3.5-inch, S.M.A.R.T.       |
|   | SATA II, 7200 rpm, 160 GB, 2.5-inch, S.M.A.R.T.       |
| Hard disk notes                                     | Supporting NCQ and 3 GBit                             |
| <b>Graphics add on cards (optional)</b>             | Dual DVI / Single Display port adapter                |
|   | DVI Adapter   |
|   | NVIDIA® Geforce® 9300GE low profile 256 MB            |
|   | NVIDIA® Geforce® 9300GE low profile 512 MB            |
|   | NVIDIA® Geforce® 9500GS low profile 512 MB            |
|   | NVIDIA® Quadro NVS 290 low profile 256 MB             |
| <b>Modular bay options</b>                          | 1.44 MB Floppy, standard                              |
|   | Blu-ray Disc Triple Writer                            |
|   | DVD-ROM   |
|   | DVD Super Multi                                       |
|   | MultiCard Reader 15in1, 3,5-Inch                      |
| <b>Interface add on cards/components (optional)</b> | WLAN III, 802.11g/Draft-n                             |
|   | WLAN II, 802.11g, 54Mbps                              |
|   | Parallel Interface                                    |
|   | Modem adapter kit (EU)                                |
|   | Modem 56k incl. RJ11 modem cable                      |
|   | Gigabit Ethernet PCIe x1                              |
|   | FireWire PCI-Card IEEE1394                            |
|   | eSATA Interface                                       |
|   | Dual serial card PCI LP                               |
|   |   |
| <b>Base unit</b>                                    | <b>ESPRIMO E7935 E80+</b>                             |
| <b>Mainboard</b>                                    |   |
| Mainboard type                                      | D2828   |
| Formfactor  | proprietary   |
| Chipset   | Intel® Q45  |

## Mainboard

|                               |  |
|-------------------------------|--|
| Processor socket              | LGA 775  |
| Processor quantity maximum    | 1  |
| System bus (FSB / HT / QPI)   | up to 1333 MHz   |
| Memory slots                  | 4 DIMM (DDR2)  |
| Supported capacity RAM (max.) | 16 GB  |
| Memory frequency              | 800 MHz  |
| Memory notes                  | With future modules.<br>Dual channel support.<br>For dual channel performance, identical memory modules in each channel are necessary (minimum 2 modules). |
| LAN                           | 10/100/1000 MBit/s Intel® 82567LM  |
| BIOS version                  | Phoenix 6.0  |
| BIOS features                 | BIOS Flash EPROM update by software<br>Recovery BIOS   |
| Audio codec                   | Realtek ALC663   |
| Audio features                | Internal speaker supports audio playback, High Definition audio  |

## I/O controller on board

|                      |   |
|----------------------|---|
| Serial ATA total     | 4   |
| thereof eSATA        | 2 (optional)  |
| Controller functions | Serial ATA II<br>NCQ and 3 GBit<br>AHCI<br>Raid 1/0 |

## Interfaces

|                         |  |
|-------------------------|--|
| Audio: line-in          | 1  |
| Audio: line-out         | 1  |
| Front audio: headphone  | 1  |
| Front audio: microphone | 1  |
| USB 2.0 total           | 12                                       |
| USB front               | 2  |
| USB rear                | 6  |
| USB internal            | 4  |
| VGA                     | 1  |
| DVI                     | optional                                 |
| Serial (RS-232)         | 2 (9pin, 16 byte FIFO, 16550 compatible) |
| Mouse / Keyboard (PS/2) | 2  |
| Ethernet (RJ-45)        | 1  |
| Parallel                | optional (25pin with EPP and ECP)        |

## Input device / components

|  |  |
|--|--|
|  | Optical USB tilt wheel mouse<br>Optional: Optical USB/PS2 tilt wheel mouse |
|--|--|

## Drive bays

|                         |  |
|-------------------------|--|
| Drive bays total        | 3                                      |
| 3.5-inch internal bays  | 1                                      |
| 3.5-inch external bays  | 1                                      |
| 5.25-inch external bays | 1                                      |
| Drive bay notes         | optional external bay as internal 3,5" |

## Slots

|                              |  |
|------------------------------|--|
| PCI-Express x16              | 1 x (210 mm) low profile   |
| PCI-Express x4 (mech. x8)    | 1 x (210 mm) low profile   |
| PCI (32-bit / 33 MHz)        | 2 x (190 mm) low profile   |
| Slots optional configuration | or 1x PCI Express x16 low profile (190mm) and via Riser 2 x PCI full height (174 / 210 mm) |

## Graphic on board

|                     |                 |
|---------------------|-----------------|
| Graphics brand name | Intel® GMA 4500 |
|---------------------|-----------------|

### Graphic on board

|   |  |
|---|--|
| Shared video memory                           | up to 256 MB   |
| Refresh rate 1024 x 768 (recommended / max.)  | 85 Hz / -  |
| Refresh rate 1280 x 1024 (recommended / max.) | 85 Hz / -  |
| Refresh rate 1600 x 1200 (recommended / max.) | 85 Hz / -  |
| TFT resolution (VGA)                          | 1360 x 768 pixel<br>1440 x 900 pixel<br>1680 x 1050 pixel<br>1920 x 1200 pixel   |
| TFT resolution (DVI)                          | 1360 x 768 pixel<br>1440 x 900 pixel<br>1680 x 1050 pixel<br>1920 x 1200 pixel   |
| Graphic notes                                 | Tested resolutions, depending on display type additional resolutions and frequencies possible<br>Shared memory depending on main memory size<br>Resolution (color depth up to 32 Bit/pixel)<br>For TFT we recommend to use 60Hz. |

### Electrical values

|                                      |  |
|--------------------------------------|--|
| Power efficiency note                | power supply efficiency (at 230V; 20% / 50% / 100% load) : 82% / 85% / 83% |
| Rated voltage range                  | 100 - 240 V  |
| Rated frequency range                | 50 - 60 Hz   |
| Operating voltage range              | 90 - 264 V   |
| Operating line frequency range       | 47 - 63 Hz   |
| Max. output of power supply          | 300 W  |
| Power factor correction/active power | active   |
| Monitor outlet                       | Switched   |

### Power consumption

|                            |   |
|----------------------------|---|
| Power consumption note     | see white paper Energy Consumption  |
| Link to Energy White Paper | <a href="http://docs.ts.fujitsu.com/dl.aspx?id=19ebaf71-f9cf-44bf-bea4-5c3257aec0b7">http://docs.ts.fujitsu.com/dl.aspx?id=19ebaf71-f9cf-44bf-bea4-5c3257aec0b7</a> |

### Heat dissipation

|                        |                                    |
|------------------------|------------------------------------|
| Heat dissipation notes | see white paper Energy Consumption |
|------------------------|------------------------------------|

### Noise for standard configuration (HDD, ODD, FDD)

|   |  |
|---|--|
| Noise emission  | According to ISO9296   |
| Related Processors for noise                                  | Intel® Core™2 Duo E8600  |
| Noise Operation mode 1: ODD load (Blue angel requirement)     | 5.0 B / 36 dB(A)   |
| Noise Operation mode 2: HDD load (Blue angel requirement)     | 3.5 B / 19 dB(A)   |
| Noise Operation mode 3: CPU 90% load (Blue angel requirement) | 3.5 B / 18 dB(A)   |
| Noise Operation mode 4: High load                             | 3.5 B / 19 dB(A)   |
| Noise Operation mode 5: Office applications                   | 3.5 B / 19 dB(A)   |
| Idle mode (Blue Angel requirement)                            | 3.5 B / 19 dB(A)   |
| Noise notes / description                                     | A weighted sound power level L <sub>wad</sub> (in B) / workplace related A-weighted sound pressure level L <sub>pAm</sub> (in dB(A)), Bystander position |

### Dimensions / Weight / Environmental

|                               |   |
|-------------------------------|---|
| Dimension (W x D x H)         | 340 x 380 x 100 mm                                |
| Operating position            | Vertical / horizontal (no feet needed)            |
| Weight                        | approx. 10 kg                                     |
| Weight notes                  | Weight may vary depending on actual configuration |
| Operating ambient temperature | 15 - 35°C   |

|  |   |
|--|---|
| <b>Compliance</b>                      |   |
| Germany                                | GS optional   |
| Europe                                 | CE<br>Nordic Swan in progress   |
| USA/Canada                             | FCC Class B<br>UL<br>CSA  |
| Global                                 | RoHS (Restriction of hazardous substances)<br>WEEE (Waste electrical and electronic equipment)<br>Microsoft Operating Systems (HCT / HCL entry / WHQL)  |
| Compliance link                        | <a href="https://sp.ts.fujitsu.com/sites/certificates/default.aspx">https://sp.ts.fujitsu.com/sites/certificates/default.aspx</a>   |
| <b>Operating system</b>                |   |
| Operating system optional preinstalled | Microsoft® Windows Vista® Home Basic<br>Microsoft® Windows Vista® Home Premium<br>Microsoft® Windows Vista® Business 32bit<br>Microsoft® Windows Vista® Business 64bit<br>TwinLoad Microsoft® Windows® XP Professional (DVD)  |
| Operating system compatible            | Linux   |
| <b>Additional Software</b>             |   |
| Additional software (preinstalled)     | Nero Essentials (burning software)  |
| Additional software (optional)         | Recovery DVD (Windows® XP / Windows Vista®)<br>Drivers & Utilities DVD (DUDVD) Windows Vista®<br>Drivers & Utilities DVD (DUDVD) Windows® XP  |
|  | Keyboard on (Fujitsu keyboard required)<br>Thermal management   |
| Spare part availability                | 5 years   |
| <b>Compatibility (references)</b>      |   |
|  | DMI 2.0<br>PC 2001<br>WMI 1.5<br>USB 2.0  |
| <b>Manageability</b>                   |   |
| Manageability features                 | ASF 2.0 (Alert Standard Format)<br>DeskUpdate Driver management<br>DeskView Migrate (optional)<br>DeskView Control (optional)<br>PXE 2.1 Boot code<br>BootP Boot Code including Bootmanage Administrator Software (tested)<br>Wake up from S5 (off mode)<br>Intrusion switch (optional)<br>iAMT 5.0 |
| Manageability type                     | DeskView 10.x client management including:  |
| DeskView features                      | On/Offline remote client management<br>Detailed system inventory management and reports<br>BIOS Management<br>Remote power management<br>System notifications<br>Advanced alerts (ASF implementation)<br>Security Remote Control<br>DeskView Helpdesk Integration<br>WoL (Wake on LAN)              |
| Manageability link                     | <a href="http://ts.fujitsu.com/manageability">http://ts.fujitsu.com/manageability</a><br><a href="http://www.altiris.com/fsc">http://www.altiris.com/fsc</a>  |
| <b>Security</b>                        |   |
| Physical security                      | Kensington Lock support<br>Eye for padlock<br>Optional: Integrated cabinet lock   |

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## Security

|                 |   |
|-----------------|---|
| System security | Boot sector virus protection<br>Write protect option for the Flash EPROM<br>Embedded security (TPM 1.2) - Infineon<br>Control of all USB interfaces<br>External USB ports can be disabled separately<br>Boot protection for floppy disk / CD drive and write protection for floppy disk drive<br>Control of external interfaces |
| User security   | User and supervisor BIOS password<br>SystemLock 2 BIOS SmartCard Security<br>Hard disk password<br>Optional: Access protection via external SmartCard reader<br>Optional: Access protection via internal SmartCard reader   |

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## Serviceability

FlexySlot  
EasyFix  
EasyChange for HDD  
EasyChange for optical drives

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## Packaging information

|                                |   |
|--------------------------------|---|
| Packaging dimension            | 500x290x540 mm  |
| Max. quantity / pallet         | 24  |
| Material - Weight (g) Carton   | 1270 g  |
| Material - Weight (g) EPS / PS | 230 g   |
| Material - Weight (g) PE       | appr. 60 g  |
| Packaging notes                | printed user documentation is bleached in chlorine free process |

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## Warranty

### Maintenance and Support Services - the perfect extension

|                     |   |
|---------------------|---|
| Recommended Service | 5x9, Response Time: Next Business Day   |
| Service Weblink     | <a href="http://ts.fujitsu.com/Supportservice">http://ts.fujitsu.com/Supportservice</a> |

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Information about environmental care, policies, programs and our Environmental Guideline FSC 03230:

<http://ts.fujitsu.com/aboutus>

Take back and Recycling information:

<http://ts.fujitsu.com/recycling>

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